



1600

RAW SEQUENCE LISTING

DATE: 09/19/2002

PATENT APPLICATION: US/09/361,655

TIME: 13:09:08

Input Set : A:\EP.txt

Output Set: N:\CRF4\09192002\I361655.raw

2 <110> APPLICANT: THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE
 3 LEE, Se-Jin
 4 ESQUELA, Aurora F.
 6 <120> TITLE OF INVENTION: METHODS OF DETECTING LIVER CELLS EXPRESSING GROWTH
 DIFFERENTIATION
 7 FACTOR-12
 9 <130> FILE REFERENCE: JHU1220-4
 11 <140> CURRENT APPLICATION NUMBER: US 09/361,655
 12 <141> CURRENT FILING DATE: 1999-07-27
 14 <150> PRIOR APPLICATION NUMBER: US 08/765,662
 15 <151> PRIOR FILING DATE: 1997-04-28
 17 <150> PRIOR APPLICATION NUMBER: PCT/ US95/08745
 18 <151> PRIOR FILING DATE: 1995-07-12
 20 <150> PRIOR APPLICATION NUMBER: US 08/274,215
 21 <151> PRIOR FILING DATE: 1994-07-13
 23 <160> NUMBER OF SEQ ID NOS: 14
 25 <170> SOFTWARE: PatentIn version 3.1
 27 <210> SEQ ID NO: 1
 28 <211> LENGTH: 34
 29 <212> TYPE: DNA
 30 <213> ORGANISM: Artificial sequence
 32 <220> FEATURE:
 33 <223> OTHER INFORMATION: PCR primer
 35 <220> FEATURE:
 36 <221> NAME/KEY: misc_feature
 37 <222> LOCATION: (12)..(12)
 38 <223> OTHER INFORMATION: n = inosine
 40 <220> FEATURE:
 41 <221> NAME/KEY: misc_feature
 42 <222> LOCATION: (18)..(18)
 43 <223> OTHER INFORMATION: n is any nucleotide
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 46 <221> NAME/KEY: misc_feature
 47 <222> LOCATION: (26)..(26)
 48 <223> OTHER INFORMATION: n = inosine
 50 <220> FEATURE:
 51 <221> NAME/KEY: misc_feature
 52 <222> LOCATION: (29)..(29)
 53 <223> OTHER INFORMATION: n = inosine
 55 <400> SEQUENCE: 1
 56 ccggaattcg gntggmgmva tggtrtrtnt aycc
 59 <210> SEQ ID NO: 2
 60 <211> LENGTH: 33
 61 <212> TYPE: DNA

ENTERED

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62 <213> ORGANISM: Artificial sequence
64 <220> FEATURE:
65 <223> OTHER INFORMATION: PCR primer
67 <220> FEATURE:
68 <221> NAME/KEY: misc_feature
69 <222> LOCATION: (13)..(13)
70 <223> OTHER INFORMATION: n = inosine
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73 <221> NAME/KEY: misc_feature
74 <222> LOCATION: (19)..(19)
75 <223> OTHER INFORMATION: n = inosine
77 <220> FEATURE:
78 <221> NAME/KEY: misc_feature
79 <222> LOCATION: (22)..(22)
80 <223> OTHER INFORMATION: n is any nucleotide
82 <220> FEATURE:
83 <221> NAME/KEY: misc_feature
84 <222> LOCATION: (25)..(25)
85 <223> OTHER INFORMATION: n = inosine
87 <220> FEATURE:
88 <221> NAME/KEY: misc_feature
89 <222> LOCATION: (28)..(28)
90 <223> OTHER INFORMATION: n = inosine
92 <400> SEQUENCE: 2
93 cccggaattc canscrcanc ynwcnacnry cat
96 <210> SEQ ID NO: 3
97 <211> LENGTH: 33
98 <212> TYPE: DNA
99 <213> ORGANISM: Artificial sequence
101 <220> FEATURE:
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104 <220> FEATURE:
105 <221> NAME/KEY: misc_feature
106 <222> LOCATION: (13)..(13)
107 <223> OTHER INFORMATION: n = inosine
109 <220> FEATURE:
110 <221> NAME/KEY: misc_feature
111 <222> LOCATION: (19)..(19)
112 <223> OTHER INFORMATION: n = inosine
114 <220> FEATURE:
115 <221> NAME/KEY: misc_feature
116 <222> LOCATION: (22)..(22)
117 <223> OTHER INFORMATION: n is any nucleotide
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120 <221> NAME/KEY: misc_feature
121 <222> LOCATION: (25)..(25)
122 <223> OTHER INFORMATION: n = inosine
124 <220> FEATURE:
125 <221> NAME/KEY: misc_feature

33

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126 <222> LOCATION: (28)..(28)
127 <223> OTHER INFORMATION: n = inosine
129 <400> SEQUENCE: 3

130 ccggaattcc canscrant snygnacnry cat

33

133 <210> SEQ ID NO: 4
134 <211> LENGTH: 33
135 <212> TYPE: DNA
136 <213> ORGANISM: Artificial sequence
138 <220> FEATURE:
139 <223> OTHER INFORMATION: PCR primer
141 <220> FEATURE:
142 <221> NAME/KEY: misc_feature
143 <222> LOCATION: (13)..(13)
144 <223> OTHER INFORMATION: n = inosine
146 <220> FEATURE:
147 <221> NAME/KEY: misc_feature
148 <222> LOCATION: (19)..(19)
149 <223> OTHER INFORMATION: n = inosine
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152 <221> NAME/KEY: misc_feature
153 <222> LOCATION: (22)..(22)
154 <223> OTHER INFORMATION: n is any nucleotide
156 <220> FEATURE:
157 <221> NAME/KEY: misc_feature
158 <222> LOCATION: (25)..(25)
159 <223> OTHER INFORMATION: n = inosine
161 <220> FEATURE:
162 <221> NAME/KEY: misc_feature
163 <222> LOCATION: (28)..(28)
164 <223> OTHER INFORMATION: n = inosine
166 <400> SEQUENCE: 4

167 ccggaattcc canscrant snwcnacnry cat

33

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171 <211> LENGTH: 33
172 <212> TYPE: DNA
173 <213> ORGANISM: Artificial sequence
175 <220> FEATURE:
176 <223> OTHER INFORMATION: PCR primer
178 <220> FEATURE:
179 <221> NAME/KEY: misc_feature
180 <222> LOCATION: (13)..(13)
181 <223> OTHER INFORMATION: n = inosine
183 <220> FEATURE:
184 <221> NAME/KEY: misc_feature
185 <222> LOCATION: (19)..(19)
186 <223> OTHER INFORMATION: n = inosine
188 <220> FEATURE:
189 <221> NAME/KEY: misc_feature
190 <222> LOCATION: (22)..(22)

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Input Set : A:\EP.txt
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191 <223> OTHER INFORMATION: n is any nucleotide
 193 <220> FEATURE:
 194 <221> NAME/KEY: misc_feature
 195 <222> LOCATION: (25)..(25)
 196 <223> OTHER INFORMATION: n = inosine
 198 <220> FEATURE:
 199 <221> NAME/KEY: misc_feature
 200 <222> LOCATION: (28)..(28)
 201 <223> OTHER INFORMATION: n = inosine
 203 <400> SEQUENCE: 5
 WOL> 204 ccggaattcr canscrant snbtaacnry cat 33
 207 <210> SEQ ID NO: 6
 208 <211> LENGTH: 33
 209 <212> TYPE: DNA
 210 <213> ORGANISM: Artificial sequence
 212 <220> FEATURE:
 213 <223> OTHER INFORMATION: PCR primer
 215 <220> FEATURE:
 216 <221> NAME/KEY: misc_feature
 217 <222> LOCATION: (13)..(13)
 218 <223> OTHER INFORMATION: n = inosine
 220 <220> FEATURE:
 221 <221> NAME/KEY: misc_feature
 222 <222> LOCATION: (19)..(19)
 223 <223> OTHER INFORMATION: n = inosine
 225 <220> FEATURE:
 226 <221> NAME/KEY: misc_feature
 227 <222> LOCATION: (22)..(22)
 228 <223> OTHER INFORMATION: n is any nucleotide
 230 <220> FEATURE:
 231 <221> NAME/KEY: misc_feature
 232 <222> LOCATION: (25)..(25)
 233 <223> OTHER INFORMATION: n = inosine
 235 <220> FEATURE:
 236 <221> NAME/KEY: misc_feature
 237 <222> LOCATION: (28)..(28)
 238 <223> OTHER INFORMATION: n = inosine
 240 <400> SEQUENCE: 6
 WOL> 241 ccggaattcr canscrang mnygnacnry cat 33
 244 <210> SEQ ID NO: 7
 245 <211> LENGTH: 33
 246 <212> TYPE: DNA
 247 <213> ORGANISM: Artificial sequence
 249 <220> FEATURE:
 250 <223> OTHER INFORMATION: PCR primer
 252 <220> FEATURE:
 253 <221> NAME/KEY: misc_feature
 254 <222> LOCATION: (13)..(13)
 255 <223> OTHER INFORMATION: n = inosine

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Input Set : A:\EP.txt
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257 <220> FEATURE:
258 <221> NAME/KEY: misc_feature
259 <222> LOCATION: (19)..(19)
260 <223> OTHER INFORMATION: n = inosine
262 <220> FEATURE:
263 <221> NAME/KEY: misc_feature
264 <222> LOCATION: (22)..(22)
265 <223> OTHER INFORMATION: n is any nucleotide
267 <220> FEATURE:
268 <221> NAME/KEY: misc_feature
269 <222> LOCATION: (25)..(25)
270 <223> OTHER INFORMATION: n = inosine
272 <220> FEATURE:
273 <221> NAME/KEY: misc_feature
274 <222> LOCATION: (28)..(28)
275 <223> OTHER INFORMATION: n = inosine
277 <400> SEQUENCE: 7

OK-> 278 ccggaattcr canscrang mnwcnacnry cat

33

281 <210> SEQ ID NO: 8
282 <211> LENGTH: 33
283 <212> TYPE: DNA
284 <213> ORGANISM: Artificial sequence
286 <220> FEATURE:
287 <223> OTHER INFORMATION: PCR primer
289 <220> FEATURE:
290 <221> NAME/KEY: misc_feature
291 <222> LOCATION: (13)..(13)
292 <223> OTHER INFORMATION: n = inosine
294 <220> FEATURE:
295 <221> NAME/KEY: misc_feature
296 <222> LOCATION: (19)..(19)
297 <223> OTHER INFORMATION: n = inosine
299 <220> FEATURE:
300 <221> NAME/KEY: misc_feature
301 <222> LOCATION: (22)..(22)
302 <223> OTHER INFORMATION: n is any nucleotide
304 <220> FEATURE:
305 <221> NAME/KEY: misc_feature
306 <222> LOCATION: (25)..(25)
307 <223> OTHER INFORMATION: n = inosine
309 <220> FEATURE:
310 <221> NAME/KEY: misc_feature
311 <222> LOCATION: (28)..(28)
312 <223> OTHER INFORMATION: n = inosine
314 <400> SEQUENCE: 8

OK-> 315 ccggaattcr canscranm gnygnacnry cat

33

318 <210> SEQ ID NO: 9
319 <211> LENGTH: 33
320 <212> TYPE: DNA

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/361,655

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 12,18,26,29
Seq#:2; N Pos. 13,19,22,25,28
Seq#:3; N Pos. 13,19,22,25,28
Seq#:4; N Pos. 13,19,22,25,28
Seq#:5; N Pos. 13,19,22,25,28
Seq#:6; N Pos. 13,19,22,25,28
Seq#:7; N Pos. 13,19,22,25,28
Seq#:8; N Pos. 13,19,22,25,28
Seq#:9; N Pos. 13,19,22,25,28
Seq#:10; N Pos. 13,19,22,25,28

VERIFICATION SUMMARY

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Input Set : A:\EP.txt

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L:56 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:93 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:130 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:241 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:352 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0